

AMENDMENTS TO THE CLAIMS:

The following listing of claims will replace all prior versions and listings of claims in this application:

1. (Currently Amended) A system for dynamic scheduling of broadcast digital data content to client devices of users, said digital data content available from one or more sources, and said scheduling based on type of data and activity of said system, said system comprising:

a digital radio broadcast system comprising one or more gateways, said one or more gateways ~~being configured for receiving and intelligently broadcasting~~ one or more selections of digital data content and processing said digital data content for digital radio broadcast transmission, said one or more gateways comprising:

a scheduler for receiving said data content, said scheduler ~~being configured for~~ separating said received data content into a first data type and a second data type;

said scheduler ~~being configured for~~ scheduling said first data type to be broadcast via digital radio broadcast transmission to said client devices during selective first broadcast periods;

said scheduler ~~being configured for~~ scheduling said second data type to be broadcast via digital radio broadcast transmission to said client devices during selective second broadcast periods;

said data content ~~enabled~~ scheduled for use during a scheduled time period after a recombination of said broadcasted first data type and second data type at said client devices;

said gateway ~~being configured to process~~ processing information for digital radio broadcast transmission to the client devices for enabling and disabling a deactivate flag for the first data type such that the first data type will be stored at said client devices, but not activated for immediate use until after said recombination, ~~said enabling and disabling of the deactivate flag occurring regardless of user instructions~~

said gateway processing said first data type and said second data type for digital radio broadcast transmission to client devices without any communication from a user requesting said data content.

2. (Original) A system for dynamic scheduling of broadcast digital data content to client devices, as per claim 1, wherein said first data-type requires a high bandwidth and said second data type requires a relatively lower bandwidth.
3. (Original) A system for dynamic scheduling of broadcast digital data content to client devices, as per claim 1, wherein rendering of said recombined data is performed upon reception of an instruction to enable a flag, said flag received by said client devices from said scheduler.
4. (Currently Amended) A system for dynamic scheduling of broadcast digital data content to client devices, as per claim 3, wherein said scheduler ~~broadcasts to said client devices~~ provides a time-to-live value that specifies a time interval that said client devices are to wait for the reception of said flag, and upon expiration of said time interval, said client devices deleting at least a part of said recombined data.
5. (Original) A system for dynamic scheduling of broadcast digital data content to client devices, as per claim 1, wherein said first data-type comprises any of, or a combination of: images, fixed display data, graphics, song compilations, digital data purchases, maps, e-books, or newspapers.
6. (Currently Amended) A system for dynamic scheduling of broadcast digital data content to client devices, as per claim 1, wherein said second data type comprises any of, or a combination of: text or audio to accompany said images, fixed display data, ~~or graphics;~~ graphics, new songs, traffic conditions, and data to complete first data type downloads.
7. (Original) A system for dynamic scheduling of broadcast digital data content to client devices, as per claim 1, wherein said first broadcast period comprises low broadcast and/or client usage periods.
8. (Original) A system for dynamic scheduling of broadcast digital data content to client devices, as per claim 1, wherein said second broadcast period comprises high broadcast and/or client usage periods.

9. (Original) A system for dynamic scheduling of broadcast digital data content to client devices, as per claim 1, wherein said first broadcast period comprises a period of relative low activity of said broadcasts or client usage and said second broadcast period comprises relatively high activity of said broadcasts or client usage.
10. (Original) A system for dynamic scheduling of broadcast digital data content to client devices, as per claim 1, wherein first data-type is broadcast before said second data type.
11. (Cancelled).
12. (Previously Presented) A system for dynamic scheduling of broadcast digital data content to client devices, as per claim 1, wherein said second data type is broadcast with a deactivate flag enabled so that it will be stored at said client devices, but not activated for immediate use.
13. (Previously Presented) A system for dynamic scheduling of broadcast digital data content to client devices, as per claim 12, wherein a disable deactivate flag is broadcast to said client devices to activate said data content.
14. (Previously Presented) A system for dynamic scheduling of broadcast digital data content to client devices, as per claim 1, wherein said client devices comprise a digital consumer electronics radio.
15. (Previously Presented) A system for dynamic scheduling of broadcast digital data content to client devices, as per claim 1, wherein said client devices comprise any of a: handheld computer device, wireless telephone, radio telephone, portable computer, or consumer electronics.
16. (Original) A system for dynamic scheduling of broadcast digital data content to client devices, as per claim 1, wherein said data content sources include any of, or a combination of: electronic advertisers, the Internet, the world wide web, ISPs, or connected digital libraries.

17. (Currently Amended) A method for dynamic scheduling of broadcast digital data content to client devices of users, said method comprising:

- receiving data content from content providers;
- separating said data content into a first data type and a second data type;
- scheduling said first data type to be broadcast via digital radio broadcast transmission during a first time period;
- scheduling said second data type to be broadcast via digital radio broadcast transmission during a second time period;
- broadcasting via digital radio broadcast transmission to one or more client devices said first and second data types during their respective time periods ~~such that they can be appropriately recombined for recombination~~ at said client devices; and
- sending an activation message to said one or more client devices to activate use of recombined first and second data types during a scheduled time period, ~~said activation message being sent regardless of user instructions~~
- said gateway processing said data content for digital radio broadcast transmission to client devices without any communication from a user requesting said data content.

18. (Previously Presented) A method for dynamic scheduling of broadcast digital data content to client devices, as per claim 17, wherein said method further comprises the step of sending a cancellation message to said one or more client devices to delete at least a part of said recombined data.

19. (Original) A method for dynamic scheduling of broadcast digital data content to client devices, as per claim 17, wherein said first data type requires a high bandwidth and said second data type requires a relatively lower bandwidth.

20. (Original) A method for dynamic scheduling of broadcast digital data content to client devices, as per claim 17, wherein said first data type comprises any of, or a combination of: images, fixed display data, graphics, song compilations, digital data purchases, maps, e-books, or newspapers.

21. (Currently Amended) A method for dynamic scheduling of broadcast digital data content to client devices, as per claim 20, wherein said second data type comprises any of, or

a combination of: text or audio to accompany said images, fixed display data, ~~or graphics~~; graphics, new songs, traffic conditions, and data to complete first data type downloads.

22. (Original) A method for dynamic scheduling of broadcast digital data content to client devices, as per claim 17, wherein said first broadcast period comprises low broadcast and/or client usage periods.

23. (Original) A method for dynamic scheduling of broadcast digital data content to client devices, as per claim 17, wherein said second broadcast period comprises high broadcast and/or client usage periods.

24. (Original) A method for dynamic scheduling of broadcast digital data content to client devices, as per claim 17, wherein said first broadcast period comprises a period of relative low activity of said broadcasts or client usage and said second broadcast period comprises relatively high activity of said broadcasts or client usage.

25. (Original) A method for dynamic scheduling of broadcast digital data content to client devices, as per claim 17, wherein first data type is broadcast before said second data type.

26. (Previously Presented) A method for dynamic scheduling of broadcast digital data content to client devices, as per claim 25, wherein said first data type is broadcast with a non-enable flag so that it will be stored at said one or more client devices, but not enabled for immediate use.

27. (Previously Presented) A method for dynamic scheduling of broadcast digital data content to client devices, as per claim 26, wherein said second data type is broadcast with a non-enable flag so that it will be stored at said one or more client devices, but not enabled for immediate use.

28. (Previously Presented) A method for dynamic scheduling of broadcast digital data content to client devices, as per claim 17, wherein said step of enabling the use of the combined data types includes transmission of an enable flag to said one or more client devices.

29. (Previously Presented) A method for dynamic scheduling of broadcast digital data content to client devices, as per claim 17, wherein said one or more client devices comprise a digital consumer electronics radio.

30. (Previously Presented) A method for dynamic scheduling of broadcast digital data content to client devices, as per claim 17, wherein said one or more client devices comprise any of a: handheld computer device, wireless telephone, radio telephone, portable computer, or home consumer electronics.

31. (Original) A method for dynamic scheduling of broadcast digital data content to client devices, as per claim 17, wherein said data content sources include any of, or a combination of: advertisers, the Internet, the world wide web, ISPs, or connected digital libraries.

32. (Currently Amended) A method for dynamic processing of broadcast digital data content, said method comprising:

receiving first data content ~~from a digital radio broadcast source~~ at a client device of a user via digital radio broadcast transmission;

storing in local storage said first data content ~~as background data~~;

receiving second data content at the client device of the user via digital radio broadcast transmission, said second data content comprising any of, or a combination of: missing data from said first data content, new data associated with said first data content, new data unrelated to said ~~background data~~ first data content, and changes in data previously received;

combining associated first and second data content; and

activating any of said received first data content, second data content or said combined associated data content during a specific scheduled time period, ~~said activating occurring regardless of user instructions~~

said first data content and second data content being received at said client device without any communication from the user requesting said first data content or said second data content.

33. (Previously Presented) A method for dynamic processing of broadcast digital data content, as per claim 32, wherein said first data content requires a high bandwidth and said second data content requires a relatively lower bandwidth.
34. (Previously Presented) A method for dynamic processing of broadcast digital data content, as per claim 32, wherein said first data content comprises any of, or a combination of: images, fixed display data, graphics, song compilations, digital data purchases, or maps.
35. (Currently Amended) A method for dynamic processing of broadcast digital data content, as per claim 32, wherein said second data content comprises any of, or a combination of: text or audio to accompany said images, fixed display data, ~~or graphics;~~ graphics, new songs, traffic conditions, and data to complete said first data content.
36. (Previously Presented) A method for dynamic processing of broadcast digital data content, as per claim 32, wherein said first data content is received during low broadcast and/or client usage periods.
37. (Previously Presented) A method for dynamic processing of broadcast digital data content, as per claim 32, wherein said second data content is received during high broadcast and/or client usage periods.
38. (Previously Presented) A method for dynamic processing of broadcast digital data content, as per claim 32, wherein said first data content is received during a period of relative low activity of said broadcasts or client usage and said second data content is received during relatively high activity of said broadcasts or client usage.
39. (Previously Presented) A method for dynamic processing of broadcast digital data content, as per claim 32, wherein first data content is received before said second data content.
40. (Previously Presented) A method for dynamic processing of broadcast digital data content, as per claim 32, wherein said first data content is received with a non-enable flag so that it will be stored, but not enabled for immediate use.

41. (Previously Presented) A method for dynamic processing of broadcast digital data content, as per claim 40, wherein said second data content is received with a non-enable flag so that it will be stored, but not enabled for immediate use.
42. (Previously Presented) A method for dynamic processing of broadcast digital data content, as per claim 32, wherein said activating step includes receiving of an enable flag at said client.
43. (Previously Presented) A method for dynamic processing of broadcast digital data content, as per claim 32, wherein said client is a digital consumer electronics radio.
44. (Previously Presented) A method for dynamic processing of broadcast digital data content, as per claim 32, wherein said client is any of a: handheld computer device, wireless telephone, radio telephone, portable computer, or consumer electronics.
45. (Previously Presented) A method for dynamic processing of broadcast digital data content, as per claim 32, wherein said data content originates from any of, or a combination of: advertisers, the Internet, the world wide web, ISPs, or connected digital libraries.
46. (Currently Amended) A method for dynamic scheduling of broadcast digital data content to client devices of users, ~~said client devices subscribing to one or more data content downloads~~, said method comprising:
- receiving data content from content providers;
  - separating said data content into a first data type and a second data type;
  - scheduling said first data type to be broadcast via digital radio broadcast transmission during a first time period;
  - scheduling said second data type to be broadcast via digital radio broadcast transmission during a second time period;
  - broadcasting via digital radio broadcast transmission to one or more client devices said first and second data types during their respective time periods ~~such that they can be appropriately recombined~~ for recombination at said one or more client devices; and
  - ~~detecting a successful completion of bulk delivery of said data content to said one or more client devices with an uplink device;~~



sending an activation message to said one or more client devices to activate use of said data content during a scheduled time period, ~~said activation message being sent regardless of user instructions; and~~

~~monitoring said client use of said data content to charge corresponding usage fees.~~

wherein all communications processed at said one or more client devices relating to said data content are push-type communications received by said one or more client devices via digital radio broadcast transmission.

47. (Currently Amended) A system for dynamic processing of broadcast digital data content, comprising:

a processing unit; and

a memory,

wherein the memory comprises processing instructions that cause the processing unit ~~is configured~~ to execute steps of:

receiving data content from content providers;

separating said data content into a first data type and a second data type;

scheduling said first data type to be broadcast via digital radio broadcast transmission during a first time period;

scheduling said second data type to be broadcast via digital radio broadcast transmission during a second time period;

communicating said first and second data types to a digital radio broadcast system for digital radio broadcast to one or more client devices of users during the respective time periods ~~such that said~~ for recombination of said first and second data types ~~can be appropriately recombined~~ at said one or more client devices; and

communicating information to the digital radio broadcast system to cause the digital radio broadcast system to send an activation message to said one or more client devices to activate use of recombined first and second data types during a scheduled time period, ~~said activation message being sent regardless of user instructions.~~

said processing unit processing said first data type and said second data type for digital radio broadcast transmission to client devices without any communication from a user requesting said data content.

48. (Currently Amended) A system for dynamic processing of broadcast digital data content, comprising:

a processing unit; and  
 a memory,  
 wherein the memory comprises processing instructions that cause the  
 processing unit ~~is configured~~ to execute steps of:  
 receiving first data content ~~from a digital radio broadcast source~~ at a client device of a  
 user via digital radio broadcast transmission;  
 storing in local storage said first data content ~~as background data~~;  
 receiving second data content at the client device of the user via digital radio  
broadcast transmission, said second data content comprising any of, or a combination of:  
 missing data from said first data content, new data associated with said first data content, new  
 data unrelated to said ~~background data~~ first data content, and changes in data previously  
 received;  
 combining associated first and second data content; and  
 activating any of said received first data content, second data content or said  
 combined associated data content during a specific scheduled time period, ~~said activating~~  
~~occurring regardless of user instructions~~  
said first data content and second data content being received at said client device  
without any communication from the user requesting said first data content or said second  
data content.

49. (Currently Amended) A computer readable medium having embodied therein  
 computer instructions ~~adapted~~ for dynamic processing of broadcast digital data content, said  
 instructions ~~being adapted to cause~~ for causing a processing unit to execute steps of:  
 receiving data content from content providers;  
 separating said data content into a first data type and a second data type;  
 scheduling said first data type to be broadcast via digital radio broadcast transmission  
 during a first time period;  
 scheduling said second data type to be broadcast via digital radio broadcast  
 transmission during a second time period;  
 communicating said first and second data types to a digital radio broadcast system for  
 digital radio broadcast to one or more client devices of users during the respective time  
 periods ~~such that said first and second data types can be appropriately recombined~~ for  
recombination at said one or more client devices; and

communicating information to the digital radio broadcast system to cause the digital radio broadcast system to send an activation message to said one or more client devices to activate use of recombined first and second data types during a scheduled time period, ~~said activation message being sent regardless of user instructions~~

such that said processing unit processes said data content for digital radio broadcast transmission to client devices without any communication from a user requesting said data content.

50. (Currently Amended) A computer readable medium having embodied therein computer instructions ~~adapted~~ for dynamic processing of broadcast digital data content, said instructions ~~being adapted to cause~~ for causing a processing unit to execute steps of:

receiving first data content ~~from a digital radio broadcast source~~ at a client device of a user via digital radio broadcast transmission;

storing in local storage said first data content ~~as background data;~~

receiving second data content at the client device of the user via digital radio broadcast transmission, said second data content comprising any of, or a combination of: missing data from said first data content, new data associated with said first data content, new data unrelated to said ~~background data~~ first data content, changes in data previously received;

combining associated first and second data content; and

activating any of said received first data content, second data content or said combined associated data content during a specific scheduled time period, ~~said activating occurring regardless of user instructions~~

said first data content and second data content being received at said client device without any communication from a user requesting said first data content or second data content.

51. (New) The system of claim 1, wherein the second data type comprises traffic update information.

52. (New) The method of claim 17, wherein the second data type comprises traffic update information.

53. (New) The method of claim 32, wherein the second data content comprises traffic update information.

54. (New) The method of claim 46, wherein the second data type comprises traffic update information.
55. (New) The system of claim 47, wherein the second data type comprises traffic update information.
56. (New) The system of claim 48, wherein the second data content comprises traffic update information.
57. (New) The computer readable medium of claim 49, wherein the second data type comprises traffic update information.
58. (New) The computer readable medium of claim 50, wherein the second data content comprises traffic update information.
59. (New) The system of claim 1, wherein the gateway processes identifier information of a particular client device for digital radio broadcast transmission for targeting content to the particular client device.
60. (New) The method of claim 17, comprising processing identifier information of a particular client device for digital radio broadcast transmission for targeting content to the particular client device.
61. (New) The method of claim 32, comprising receiving identifier information of a particular client device via digital radio broadcast transmission along with content targeted to the particular client device.
62. (New) The method of claim 46, comprising processing identifier information of a particular client device for digital radio broadcast transmission for targeting content to the particular client device.

63. (New) The system of claim 47, wherein the processing unit processes identifier information of a particular client device for digital radio broadcast transmission for targeting content to the particular client device.
64. (New) The system of claim 48, wherein the processing unit receives identifier information of a particular client device via digital radio broadcast transmission along with content targeted to the particular client device.
65. (New) The computer readable medium of claim 49, comprising computer instructions for causing the processing unit to process identifier information of a particular client device for digital radio broadcast transmission for targeting content to the particular client device.
66. (New) The computer readable medium of claim 50, comprising computer instructions for causing the processing unit to receive identifier information of a particular client device via digital radio broadcast transmission along with content targeted to the particular client device.